

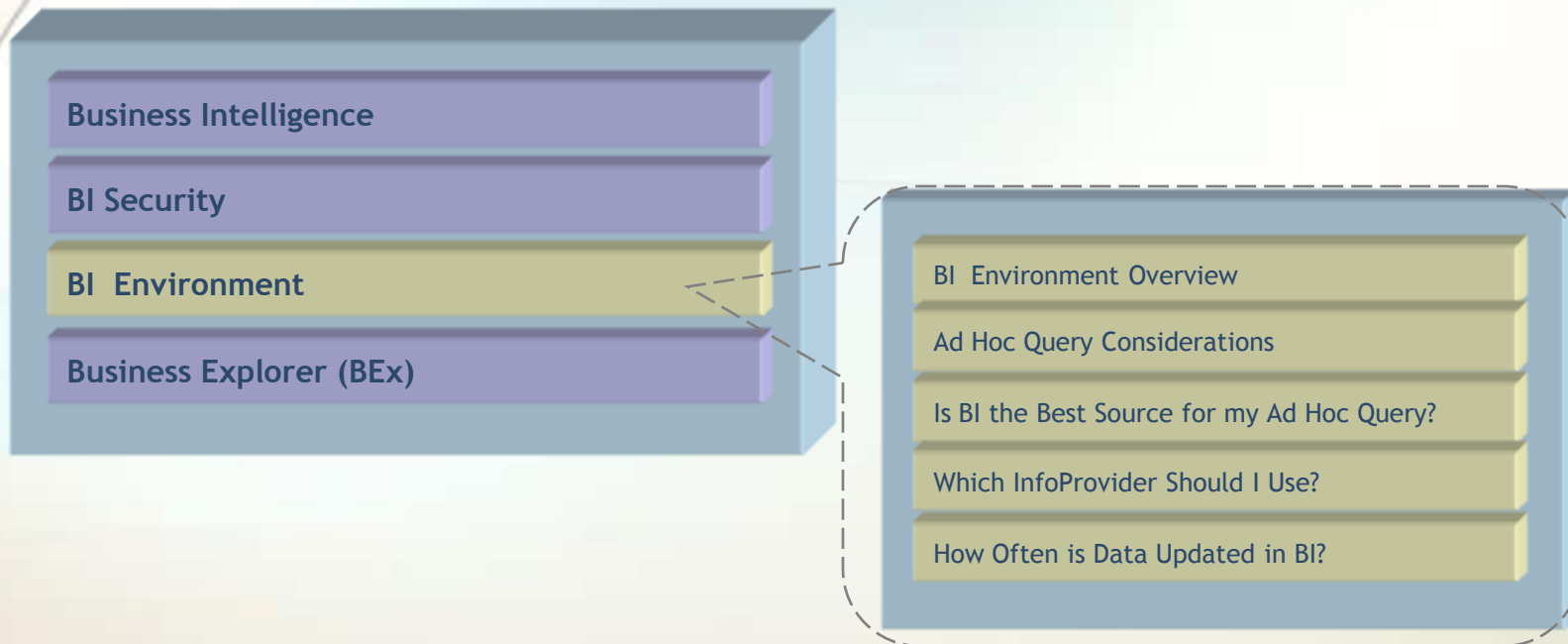
SAP Business Intelligence Reporting

BI Environment

Washington State HRMS Business Intelligence (BI)
BI Power User Workshop Materials

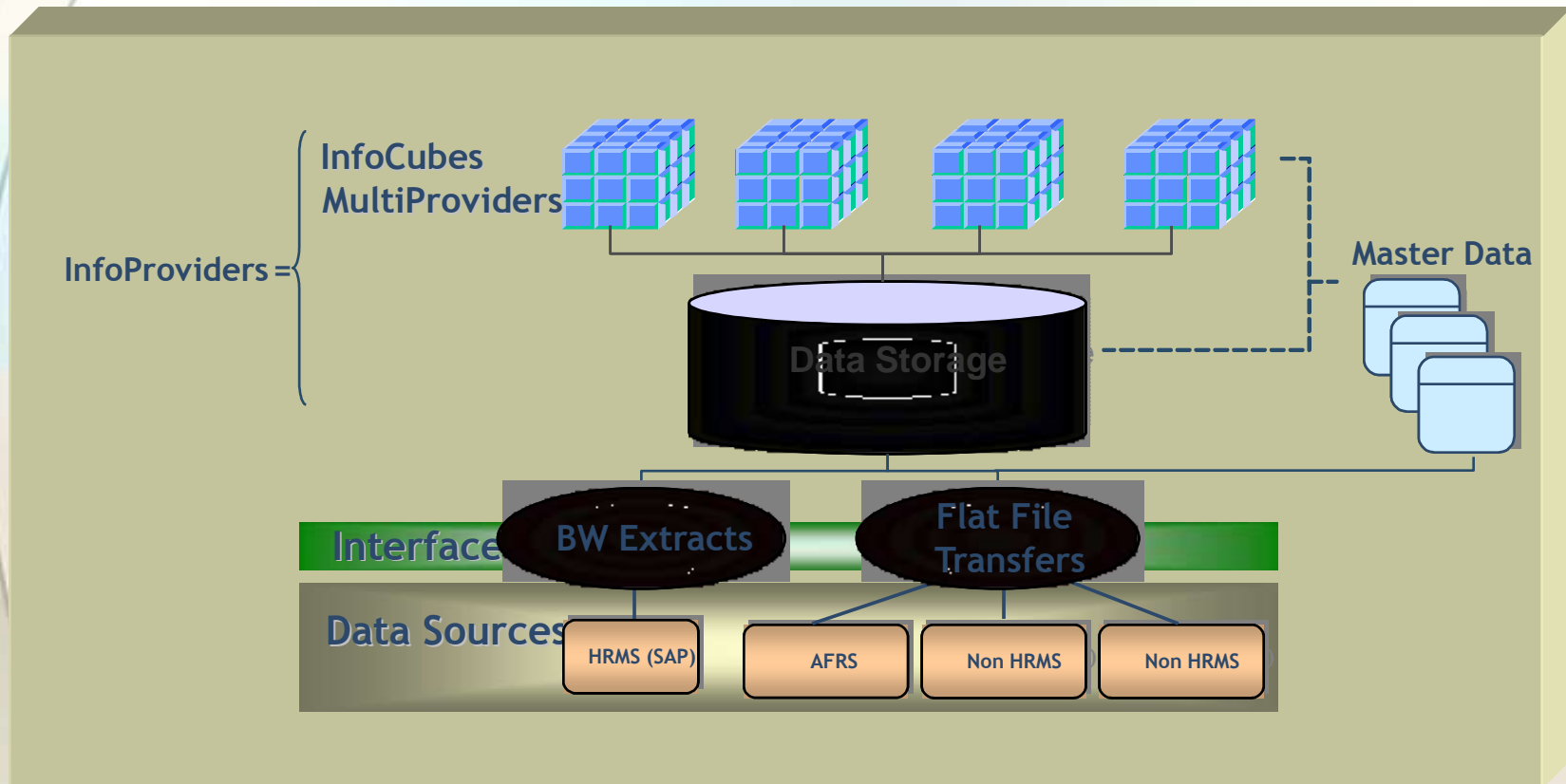
General Topics - BI Power User

The following section provides an overview of the BI Environment.



BI Environment Overview

The following diagram provides a high level view of the environment of the Business Intelligence and how data is retrieved and stored:



Ad Hoc Query Considerations

Before creating an ad hoc query, BI Power Users need to understand the business requirements for the ad hoc query.

The following sections include considerations BI Power Users need to address prior to creating an ad hoc query in the BI:

- Is BI the Best Source for my Ad Hoc Query?
- Which InfoProvider Should I Use?
- How often is Data Updated in the BI?



Is BI the Best Source for my Ad Hoc Query?

To determine if BI is the best source for an ad hoc query, BI Power Users need to consider:

- Does the ad hoc query require real-time data?
- Does the BI contain data required for the ad hoc query? (For example, if Pay Period is required for the ad hoc query, BI will not be the best source since Pay Period is not included in BI).
- Is there an existing report in HRMS?
- Is there an existing report in HRMS BI?



Is BI the Best Source for my Ad Hoc Query, Cont...

HRMS contains two basic report types:

1. **HRMS Reports:** Includes SAP Delivered reports and Custom reports for the State of Washington. Contains real-time data.
2. **HRMS Business Intelligence Reports:** Includes Custom reports for the State of Washington. Does not contain real-time data.

HRMS Reports

- HRMS reports are accessed in HRMS
- Includes SAP Delivered reports and Customized Reports for the State of Washington
- Provides ability to report from “real-time” data since the data is maintained in the HRMS application

Personnel Area	Full Name	Educational Attainment	Certificate
Dept of Personnel	Carl Oread 4 Yr Degree	Not Applicable	
Dept of Personnel	High School or GED	Not Applicable	
Dept of Personnel	Some College 2 Yrs	Not Applicable	
Dept of Personnel	Other Master Degree	Not Applicable	
Dept of Personnel	Carl Oread 4 Yr Degree	Not Applicable	
Dept of Personnel	Voc. or Bus. School	Not Applicable	
Dept of Personnel	Carl Oread 4 Yr Degree	Not Applicable	
Dept of Personnel	MAW/MSW Degree	Not Applicable	
Dept of Personnel	Voc. or Bus. School	Not Applicable	
Dept of Personnel	AA Degree	Not Applicable	
Dept of Personnel	MAW/MSW Degree	Not Applicable	

HRMS BI Reports

- Accessible through the HRMS Portal
- Includes Customized Reports for the State of Washington
- Provides the ability to report from specific data that has been extracted and loaded from HRMS and other sources such as AFRS
- This is NOT “real-time” data since the data is not maintained within the HRMS BI application

Report Name	Report ID	Report Type	Report Status
Report 1	10000001	Report	Active
Report 2	10000002	Report	Active
Report 3	10000003	Report	Active
Report 4	10000004	Report	Active
Report 5	10000005	Report	Active
Report 6	10000006	Report	Active
Report 7	10000007	Report	Active
Report 8	10000008	Report	Active
Report 9	10000009	Report	Active
Report 10	10000010	Report	Active

Continued...

Is BI the Best Source for my Ad Hoc Query, Cont...

If an ad hoc query requires real-time data, HRMS may be the appropriate source for retrieving data. HRMS provides many options for data retrieval. For example, the Flexible Employee Data Report (Transaction: ZHR_RPTPAN02) in HRMS allows the user to select fields to include on the report.

In the example below, the Flexible Employee Data Report was used to retrieve data for Personnel Area, Full Name, Educational Establishment and Certificate fields.

Program Edit Goto System Help

Flexible Employee Data Report

Further selections Search helps Sort order Org. structure

Key date
☒ Today
☐ Other keydate
 Key Date

Selection
 Personnel Number

Data Limiter
 Number of Employees 100

Additional data
 Field selection

HR field selection

Selectable fields
 Other Agency Commission Date
 Pay Scale Area
 Pay Scale Area Code
 Pay Scale Group
 Pay Scale Level
 Pay Scale Reason
 Pay Scale Reason Code
 Payroll Area
 Payroll Area Code
 Personal Holiday Eligible
 Personnel Area Code
 Personnel Number
 Personnel Subarea
 Personnel Subarea Code

Selected fields
 Personnel Area
 Full Name
 Educational establishment
 Certificate

Selection: 4 / 30

File Edit Data Views Settings System Exit

Flexible Employee Data Report

Flexible Employee Data Report

Date Range: 01/23/2006 - 01/23/2006

Personnel ID	First Name	Educational Institution	Certification
241	JH	Cell Grad 4 Yr Degree	Not Applicable
		Cell Grad 4 Yr Degree	Not Applicable
		High School or GED	Not Applicable
		Some College 20hr+	Not Applicable
		Other Master Degree	Not Applicable
		Cell Grad 4 Yr Degree	Not Applicable
		Cell Grad 4 Yr Degree	Not Applicable
		Voc. or Bus. School	Not Applicable
		Cell Grad 4 Yr Degree	Not Applicable
		M.A./M.Ed./M.S. Degree	Not Applicable
		Voc. or Bus. School	Not Applicable
		A.A. Degree	Not Applicable

Flexible Employee Data Report Results

Select fields for the Flexible Employee Data Report

BI Power User Workshop materials are specific to HRMS BI reports and ad hoc queries only. HRMS reports are covered in separate HRMS Training Materials.

In the example below, the Headcount and Education MultiCube in HRMS BI was used to retrieve data for Personnel Area, Employee Name, Educational Establishment and Certificate fields.



HRMS BI ad hoc query results

Which InfoProvider Should I Use?

Once BI Power Users have determined the BI is the best source for the ad hoc query, they need to determine which InfoProvider to use.

For example:

- The Quota Data InfoCube contains quota and accrual balances
- The Headcount and Education MultiCube contains education and training information

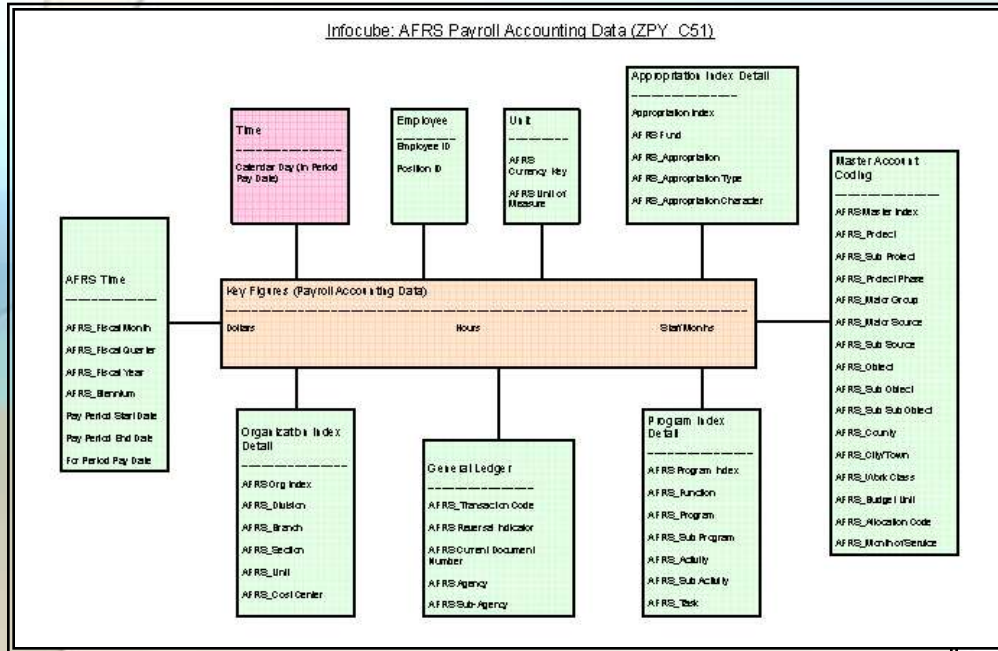
The table below lists BI InfoProviders with examples of how the InfoProvider might be used:

InfoProvider	InfoProvider Type	Example of Use
AFRS Payroll Accounting Data (ZPY_C51)	InfoCube	➤ Employee and Position level Payroll and Financial information provided by AFRS
Employee Specific Payroll Data (ZPY_M01)	InfoCube	<ul style="list-style-type: none"> ➤ Wage types by Personnel Area and/or Employee ➤ Employee count by Wage Type
Employee Specific Payroll Data w/PA (ZPY_M02)	MultiCube	➤ Combines data from Employee Specific Payroll Data (ZPY_M01) and Headcount and Personnel Actions (ZPA_C01)
Headcount and Education (ZPA_M50)	MultiCube	<ul style="list-style-type: none"> ➤ Number of records by Educational Establishment, Certificate and Education/Training ➤ Employee list by Educational Establishment, Certificate and Education/Training
Headcount and Personnel Actions (ZPA_C01)	InfoCube	<ul style="list-style-type: none"> ➤ Summary level employee counts by demographic areas such as Gender, County Code, Employee Group, etc. ➤ Detail level employee counts by employee specific information such as Employee Name, Personnel ID, etc. ➤ Employee count by personnel Action Type or Action Reason ➤ Employee list by personnel Action Type or Action Reason
Quota Data (ZPT_M02)	InfoCube	➤ Quota accrual and balances by Personnel Area and/or Employee
Staffing Assignments (ZPAOS_C01)	InfoCube	<ul style="list-style-type: none"> ➤ Position count by Organizational Unit and/or Job Class ➤ Position list by Organizational Unit and/or Job Class
Time and Labor (ZPT_M01)	InfoCube	➤ Time balances and accruals by Personnel Area and/or Employee
Grievance Data (ZGR_M01)	MultiCube	➤ Grievance data by Bargaining Unit.
E-Recruiting Data (ZPAER_M01)	MultiCube	➤ E-Recruiting data by Requisition, Hiring Mgr and/or Questionnaires.

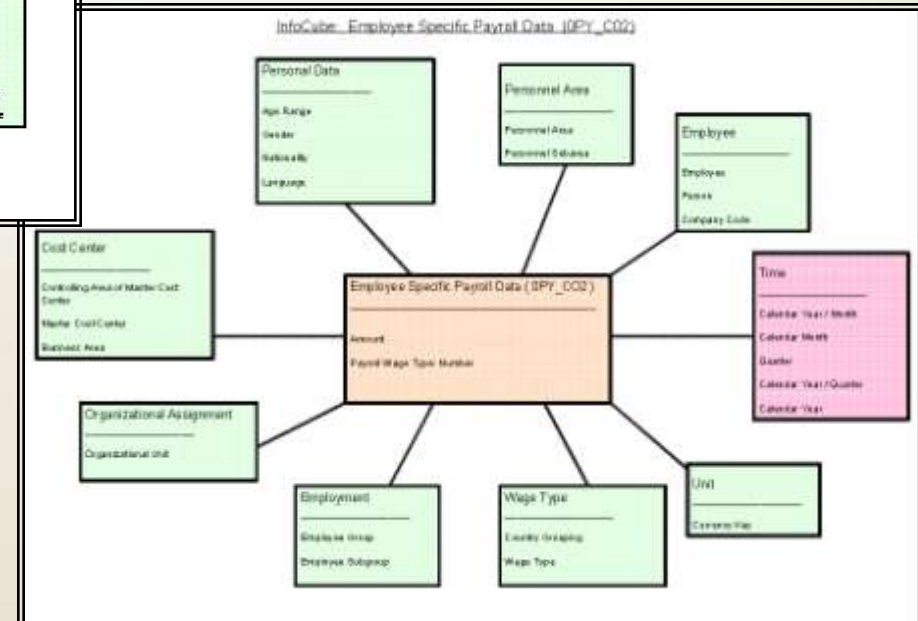
Which InfoProvider Should I Use, Cont...

The following designs display the reporting elements included in the BI InfoProviders:

AFRS Payroll Accounting Data (ZPY_C51) - Financials InfoCube



Employee Specific Payroll Data (ZPY_M01) InfoCube

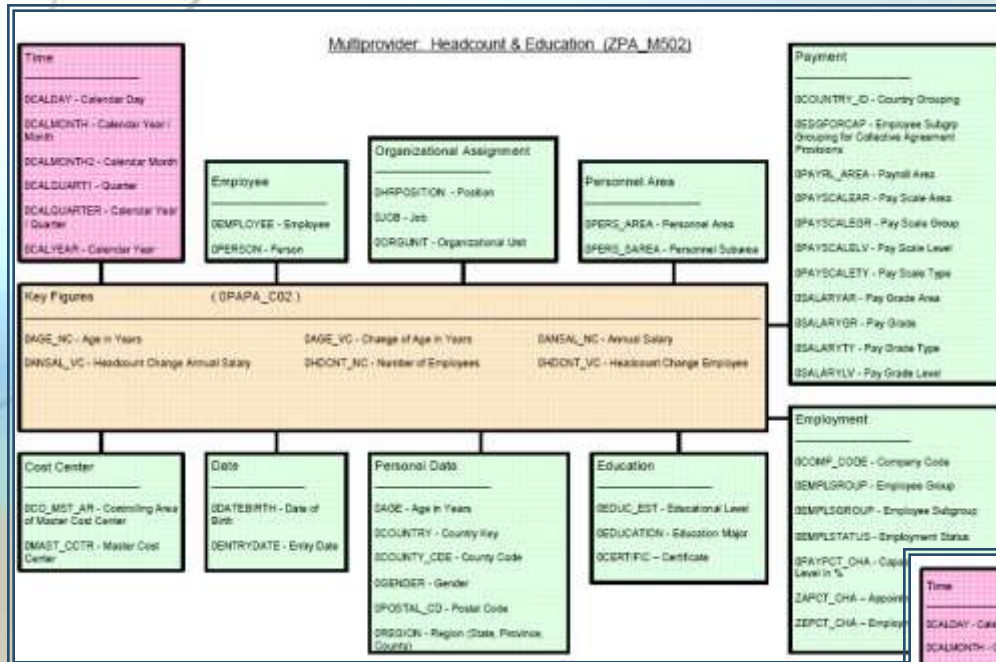


InfoProvider Designs can be viewed from the HRMS Support website:

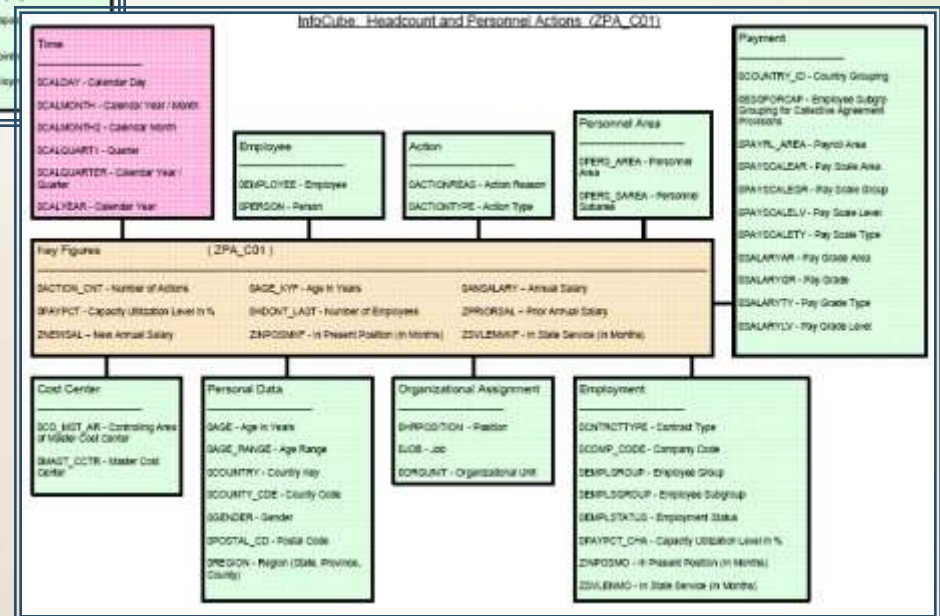
<http://www.dop.wa.gov/payroll/HRMS/Training/Pages/BusinessIntelligenceTraining.aspx>

Which InfoProvider Should I Use, Cont...

Headcount & Education (ZPA_M50) MultiCube



Headcount & Personnel Actions (ZPA_C01) InfoCube

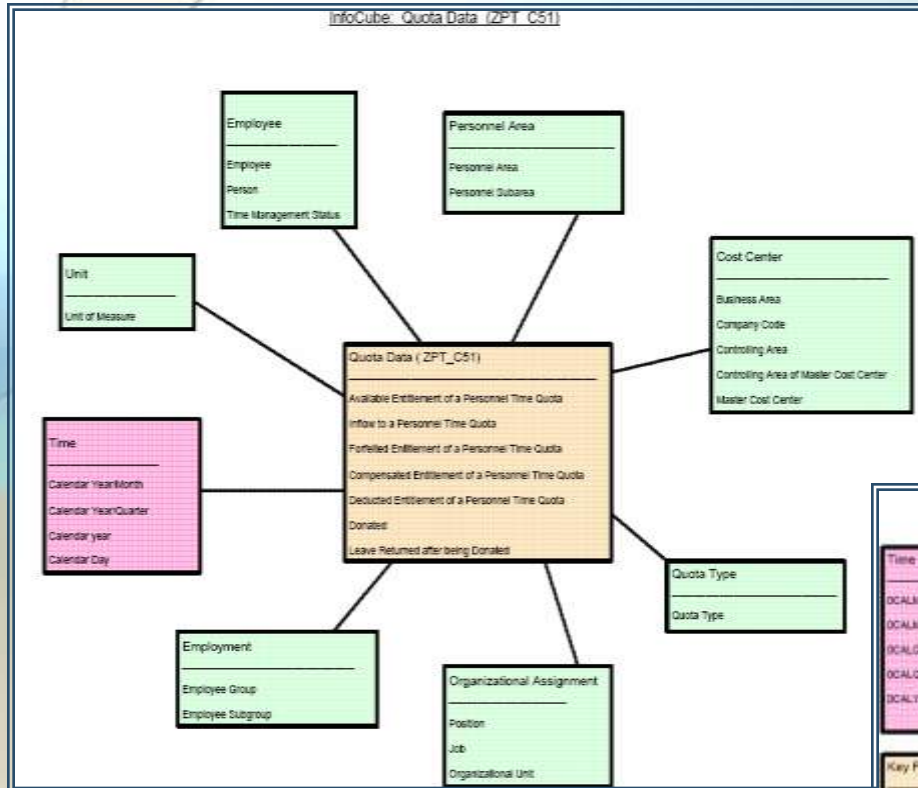


InfoProvider Designs can be viewed from the HRMS Support website:

<http://www.dop.wa.gov/payroll/HRMS/Training/Pages/BusinessIntelligenceTraining.aspx>

Which InfoProvider Should I Use, Cont...

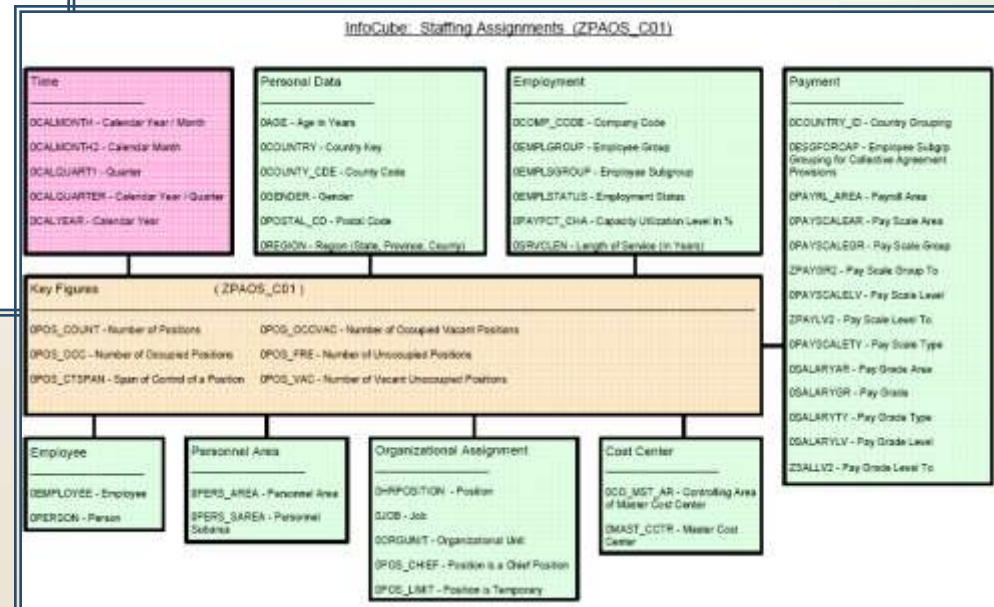
Quota Data (ZPT_C51) InfoCube



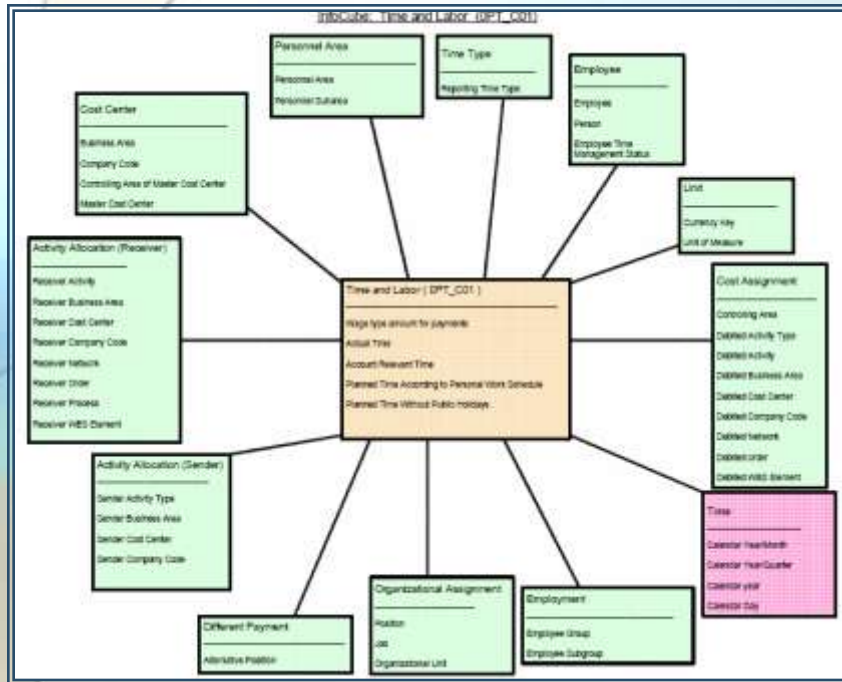
Place holder for Grievance

InfoProvider Designs can be viewed from the HRMS Support website:

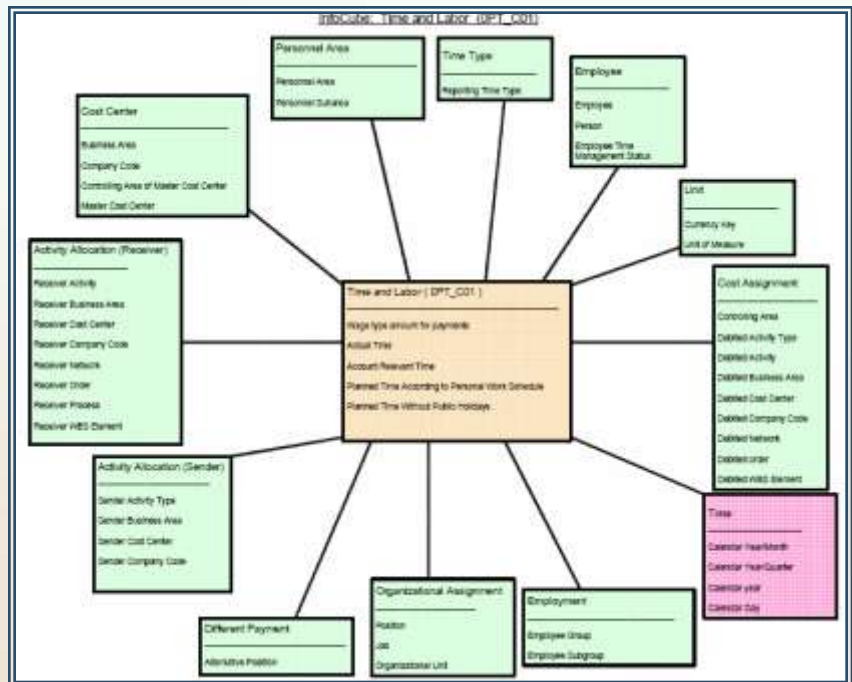
<http://www.dop.wa.gov/payroll/HRMS/Training/Pages/BusinessIntelligenceTraining.aspx>



Time and Labor (ZPT_C01) InfoCube



Place holder for EE specific with PA



InfoProvider Designs can be viewed from the HRMS Support website:

<http://www.dop.wa.gov/payroll/HRMS/Training/Pages/BusinessIntelligenceTraining.aspx>


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graph TD
    ZPA_C01[ZPA_C01] --> Time[Time]
    ZPA_C01 --> Employee[Employee]
    ZPA_C01 --> Action[Action]
    ZPA_C01 --> Payment[Payment]

    ZPA_C01 --> Pay_Figures[Pay Figures (ZPA_C01)]
    Pay_Figures --> SACTOEN_CNT[SACTOEN_CNT - Number of Actions]
    Pay_Figures --> SPAYPCT[SPAYPCT - Capacity Utilization Level in %]
    Pay_Figures --> ZNEYSAL[ZNEYSAL - New Annual Salary]
    Pay_Figures --> SAGE_YVP[SAGE_YVP - Age in Years]
    Pay_Figures --> SINDONT_LAST[SINDONT_LAST - Number of Employees]
    Pay_Figures --> ZNPDSMRP[ZNPDSMRP - In Present Position (in Months)]
    Pay_Figures --> SANSALARY[SANSALARY - Annual Salary]
    Pay_Figures --> ZPNSORAL[ZPNSORAL - Prior Annual Salary]
    Pay_Figures --> ZDLEMSRP[ZDLEMSRP - In State Service (in Months)]

    Pay_Figures --> Cost_Center[Cost Center]
    Cost_Center --> SCTO_MST_ARE[SCTO_MST_ARE - Controlling Area of Master Cost Center]
    Cost_Center --> SMAST_CCTR[SMAST_CCTR - Master Cost Center]

    Employee --> Organizational_Assignment[Organizational Assignment]
    Organizational_Assignment --> SINPROGNOH[SINPROGNOH - Position]
    Organizational_Assignment --> SJOB[SJOB - Job]
    Organizational_Assignment --> SCORUNIT[SCORUNIT - Organizational Unit]

    Employee --> Employment[Employment]
    Employment --> SCTRNTYPE[SCTRNTYPE - Contract Type]
    Employment --> SCOMP_CODE[SCOMP_CODE - Company Code]
    Employment --> SCMPLOUP[SCMPLOUP - Employee Group]
    Employment --> SCMPLOUPGR[SCMPLOUPGR - Employee Subgroup]
    Employment --> SCMPSTATUS[SCMPSTATUS - Employment Status]
    Employment --> SPAYPCT_CHR[SPAYPCT_CHR - Capacity Utilization Level in %]
    Employment --> ZNPDSMO[ZNPDSMO - In Present Position (in Months)]
    Employment --> ZDLEMSMO[ZDLEMSMO - In State Service (in Months)]

    Time --> SCALDAY[SCALDAY - Calendar Day]
    Time --> SCALMONTH[SCALMONTH - Calendar Month]
    Time --> SCALMONTH2[SCALMONTH2 - Calendar Month]
    Time --> SCALQUART[SCALQUART - Quarter]
    Time --> SCALQUARTER[SCALQUARTER - Calendar Year / Quarter]
    Time --> SCALYEAR[SCALYEAR - Calendar Year]

    Employee --> EMPLOYEE[EMPLOYEE - Employee]
    Employee --> SPERSON[SPERSON - Person]
    Employee --> PERSONAL_AREA[Personal Area]
    PERSONAL_AREA --> SAGE[SAGE - Age in Years]
    PERSONAL_AREA --> SAGE_RANGE[SAGE_RANGE - Age Range]
    PERSONAL_AREA --> SCOUNTRY[SCOUNTRY - Country Key]
    PERSONAL_AREA --> SCOUNTRY_CODE[SCOUNTRY_CODE - Country Code]
    PERSONAL_AREA --> SGENCER[SGENCER - Gender]
    PERSONAL_AREA --> SPOSTAL_CD[SPOSTAL_CD - Postal Code]
    PERSONAL_AREA --> SPEDOWN[SPEDOWN - Region (State, Province, County)]

    Action --> ACTIONREAS[ACTIONREAS - Action Reason]
    Action --> ACTIONTYPE[ACTIONTYPE - Action Type]
    Action --> PERSONNEL_AREA[Personnel Area]
    PERSONNEL_AREA --> SPERF_AREA[SPERF_AREA - PERSONNEL Area]
    PERSONNEL_AREA --> SPERSA[SPERSA - PERSONNEL Subarea]

    Payment --> SCOUNTRY_CD[SCOUNTRY_CD - Country Grouping]
    Payment --> DESGPOCAP[DESGPOCAP - Employee Subgroup Grouping for Collective Agreement Provisions]
    Payment --> SPAYTE_AREA[SPAYTE_AREA - Payroll Area]
    Payment --> SPAYSCALEAR[SPAYSCALEAR - Pay Scale Area]
    Payment --> SPAYSCALEGR[SPAYSCALEGR - Pay Scale Group]
    Payment --> SPAYSCALELV[SPAYSCALELV - Pay Scale Level]
    Payment --> SPAYSCALETY[SPAYSCALETY - Pay Scale Type]
    Payment --> SPAYSCALEYAR[SPAYSCALEYAR - Pay Grade Area]
    Payment --> SPAYSCALEYOR[SPAYSCALEYOR - Pay Grade]
    Payment --> SPAYSCALEYTY[SPAYSCALEYTY - Pay Grade Type]
    Payment --> SPAYSCALEYLV[SPAYSCALEYLV - Pay Grade Level]
  
```

How Often is Data Updated in BI?

Once BI Power Users have determined which InfoProvider to use for an ad hoc query, they need to also consider how often the data is updated in the BI since it is not real-time data and update frequencies vary. The table below provides an overview of the update frequency of each InfoProvider in BI .

InfoProvider	Update Frequency	Data Load Schedule
AFRS Payroll Accounting Data (ZPY_C51)	Daily (note: AFRS Payroll Accounting Transactional Data will be updated when an adjustment has been made and a new AFRS file is available. If no adjustments have occurred, AFRS Payroll Accounting Transactional Data will be updated after the next payroll exit)	Daily
Headcount and Personnel Actions (ZPA_C01)	Daily	Daily
Employee Specific Payroll Data (ZPY_M01)	Semi-Monthly	After Payroll Exit
Employee Specific Payroll Data w/PA (ZPY_M02)	Semi-Monthly	After Payroll Exit
Quota Data (ZPT_M02)	Monthly	1 st Friday/mo*
Time and Labor (ZPT_M01)	Semi-Monthly	After Payroll Exit
Headcount and Education (ZPA_M50)	Weekly	Friday
Staffing Assignments (ZPAOS_C01)	Weekly	Friday
Grievance (ZGR_M01)	Weekly	Friday
E-Recruiting (ZPAER_M01)	Weekly	Friday

*In the months that HRMS Payroll processing is scheduled to occur over the first Friday of the month, the BI load will be rescheduled. Usually for the second Friday of the month.

Continued...

How Often is Data Updated in BI, Cont...

The table below provides an overview of the update frequency for the most commonly used Master Data in BI .

Master Data	Update Frequency	Data Load Schedule
Employee	Daily	Daily
Person	Daily	Daily
Company Code	Weekly	Friday
Contract Type	Weekly	Friday
Job	Weekly	Friday
Org Unit	Weekly	Friday
Pay Grade Level	Weekly	Friday
Pay Grade Level To	Weekly	Friday
Pay Scale	Weekly	Friday
Pay Scale Level	Weekly	Friday
Pay Scale Level To	Weekly	Friday
Position	Weekly	Friday

How Often is Data Updated in BI, Cont...

While an InfoProvider may be updated Weekly, Master Data that is being referenced in the InfoProvider may be updated daily.

The following illustration provides an example of different update frequencies for InfoProviders and Master Data using the Staffing Assignments InfoCube as an example.

The Position that is being used for the Employee Characteristic in the Employee Dimension of the Staffing Assignments InfoCube will be updated DAILY since Employee Master Data is scheduled to be updated DAILY.

